

In the Claims

Claims 1 - 30 (Cancelled)

31. (New) A recombinant protein comprising a fragment of an alpha-integrin for producing at least one recombinant protein of interest in a cell, with the exception of a mammalian cell.

32. (New) The recombinant protein of claim 31, wherein the cell is a bacterium.

33. (New) The recombinant protein of claim 31, which is a complete amino acid sequence of the alpha-integrin or a partial sequence.

34. (New) The recombinant protein of claim 31, which is a sequence comprising the N-terminal end of the alpha-integrin used.

35. (New) The recombinant protein of claim 31, which is native or mutated.

36. (New) The recombinant protein of claim 31, comprising at least FG-GAP modules IV to VII and a portion of FG-GAP module III of the alpha-integrin.

37. (New) The recombinant protein of claim 31, originating from at least one of an alpha-integrin selected from the group consisting of the integrins $\alpha 1$, $\alpha 2$, $\alpha 3$, $\alpha 4$, $\alpha 5$, $\alpha 6$, $\alpha 7$, $\alpha 8$, $\alpha 9$, $\alpha 10$, $\alpha 11$, αD , αE , αL , αM , αX , αIIb and αV .

38. (New) The recombinant protein of claim 37, originating from at least one of an alpha-integrin selected from the group consisting of the integrins $\alpha 5$, αV and αIIb .

39. (New) The recombinant protein of claim 38, wherein the alpha-5-integrin fragment extends between positions 231 and 517 (taking account of the presence of the signal peptide) or positions 190 to 476 (not taking account of the presence of the signal peptide).

40. (New) The recombinant protein of claim 38, wherein the α V-integrin fragment extends between positions 211 and 495 (taking account of the presence of the signal peptide) or positions 181 to 465 (not taking account of the presence of the signal peptide).

41. (New) The recombinant protein of claim 38, wherein the α IIb-integrin fragment extends between positions 224 and 508 (taking account of the presence of the signal peptide) or positions 193 (G residue) to 477 (Q residue) of α IIb-integrin.

42. (New) The recombinant protein of claim 31, comprising at least one amino acid sequence selected from the group consisting of SEQ ID No. 1, SEQ ID No. 2 and SEQ ID No. 3.

43. (New) The recombinant protein of claim 31, comprising at least one amino acid sequence encoded by one of the nucleotide sequences selected from the group consisting of SEQ ID No. 4, SEQ ID No. 5 and SEQ ID No. 6.

44. (New) The recombinant protein of claim 31, located in the recombinant protein(s) of interest upstream of sequence(s) of the protein(s) of interest to be produced.

45. (New) The recombinant protein of claim 31, wherein the recombinant protein(s) comprises(comprise) at least one endoprotease cleavage site.

46. (New) The recombinant protein of claim 31, wherein the recombinant protein(s) comprises(comprise) at least one spacer arm.

47. (New) The recombinant protein of claim 46, wherein the spacer arm consists of peptide sequence SEQ ID No. 8.

48. (New) The recombinant protein of claim 46, wherein the recombinant protein comprises at least one spacer arm encoded by nucleic acid sequence SEQ ID No. 7.

49. (New) The recombinant protein of claim 31, wherein the protein of interest is a G protein-coupled receptor.

50. (New) The recombinant protein of claim 49, wherein the G protein-coupled receptor is at least one selected from vasopressin and oxytocin receptors (V1a, V2, OTR), leukotriene receptors (BLT1, BLT2, CysLT1, CysLT2), adrenergic receptors (beta-3), cannabinodi receptors (CB1), chemokine receptors (CCR5, CXCR4), the angiotensin II AT1 receptor, and the bradykinin B2 receptor.

51. (New) The recombinant protein of claim 31, comprising at least one sequence of 6 histidine residues (6xHIS tag; SEQ ID NO: 12)).

52. (New) The recombinant protein of claim 51, wherein the sequence of 6 histidine residues is at the C-terminal end of the protein.

53. (New) A nucleotide sequence coding for at least one recombinant protein of interest as described in claim 31.

54. (New) A vector comprising a nucleotide sequence of claim 53.

55. (New) A cell, with the exception of a mammalian cell, into which a nucleotide sequence of claim 53 or a vector as described in claim 54 has been introduced.

56. (New) A method for producing at least one protein of interest comprising:
introducing into a cell, with the exception of a mammalian cell, a nucleotide sequence coding for at least one recombinant protein of claim 53, and
placing the cell under conditions which allow expression of the recombinant protein(s) of interest.

57. (New) The method as claimed in claim 56, further comprising cutting the recombinant protein(s) of interest with an endoprotease.

58. (New) The method of claim 56, further comprising purifying the recombinant protein(s) of interest, or the protein(s) of interest separated from its(their) fusion partner(s).